

# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

ATTY. DOCKET NO.

F064

SERIAL NO.

09/765,806

APPLICANTS Gerlach et al.

FILING DATE

January 19, 2001

GROUP ART UNIT

2881

## U.S. PATENT DOCUMENTS

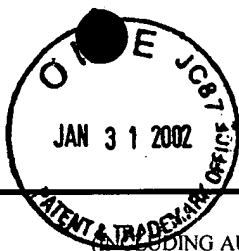
*Examiner Initial	Cite No.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date (if appropriate)
M.E.	A	4,634,871	Jan 6 1987	Knauer	250	398	
M.E.	B	4,661,709	Apr 28, 1987	Walker	250	492.2	
M.E.	C	4,694,178	Sep 15, 1987	Harte	250	396	
M.E.	D	4,876,112	Oct 24, 1989	Kaito et al.	427	38	
M.E.	E	5,051,556	Sep 24, 1991	Sakamoto	219	121.25	
M.E.	F	5,188,705	Feb 23, 1993	Swanson	156	643	
M.E.	G	5,435,850	Jul 25, 1995	Rasmussen	118	726	
M.E.	H	5,827,786	Oct 27, 1998	Puretz	438	789	
M.E.	I	5,945,677	Aug 31, 1999	Leung	250	396	
M.E.	J	6,011,269	Jan 4, 2000	Veneklasen	250	492.23	

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

## OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

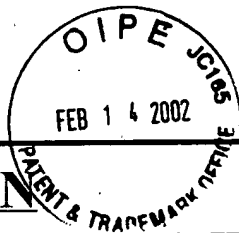
*Examiner Initial	Cite No.	
M.E.	K	BAUER, E., Koziol, C., Lilienkamp, G., Schmidt, T., "Spectromicroscopy in a Low Energy Electron Microscope," <i>Journal of Electron Spectroscopy and Related Phenomena</i> 84 (1997) pp 201-209
M.E.	L	EDINGER, KLAUS AND KRAUS, THOMAS, "Modeling of Focused Ion Beam Induced Surface Chemistry," <i>Journal of Vacuum Science Technology B</i> 18(6), Nov/Dec 2000; pp 3190-3193.
M.E.	M	LEE, Y., et al. "Development of Ion Sources for Ion Projection Lithography" <i>Journal of Vacuum Science Technology, B</i> 14(6), Nov/Dec 1996; pp 3947-3950.



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U.M.E.	N	ORLOFF, J., LI, J. Z., SATO, M., "Experimental Study of a Focused Ion Beam Probe Size and Comparison with Theory," <i>Journal of Vacuum Science Technology</i> , B 9 (5), Sep/Oct 1991, pp 2609-2612.
U.M.E.	O	ORLOFF, J., and SWANSON, L. W., "Some Considerations on the Design of a Field Emission Gun for a Shaped Spit Lithography System," <i>Optik</i> , Vol. 61, No.3 (1982), pp 237-245.
U.M.E.	P	ORLOFF, J., and SUDRAUD, Pierre, "Design of a 100 kV, High Resolution Focused Ion Beam Column with a Liquid Metal Ion Source" <i>Microelectronic Engineering</i> 3 (1985)pp. 161-165
U.M.E.	Q	SATO, M., and ORLOFF, J. "A Method for calculating the Current Density of Charged Particle Beams and the Effect of Finite Source Size and Spherical and Chromatic Aberrations on the Focusing Characteristics," <i>Journal of Vacuum Science Technology</i> , B, Vol 9, No. 5, Sep/Oct 1991; pp 2602-2608
U.M.E.	R	STICKEL, W., "Simulation of Columb Interactions in Electron Beam Lithography Systems- A Comparison of Theoretical Models," Papers from the 42 <sup>nd</sup> International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication, 26-29 May 1998.
U.M.E.	S	SLINGERLAND, H. N., "Optimization of a Chromatically Limited Ion Microprobe," <i>Microelectronic Engineering</i> 2 (1984) 219-226
U.M.E.	T	TUGGLE, D.W., SWANSON, L.W., and GESLEY, M. A., "Current Density Distribution in a Chromatically Limited Electron Microprobe", <i>J. Vac. Sci. Technol.</i> B4 (1) Jan/Feb 1986 pp. 131-134
EXAMINER U.M.E. El-Shammaa		DATE CONSIDERED 12.20.02

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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*Examiner Initial	Cite No.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date (if appropriate)
M.E.	A	4,609,809	02 Sep 86	Yamaguchi	219	121EM	
M.E.	B	4,820,898	11 Apl 89	Slingerland	219	121.12	
M.E.	C	4,874,460	17 Oct 89	Nakagawa	156	626	
M.E.	D	4,894,549	16 Jan 90	Stengl	250	492.2	

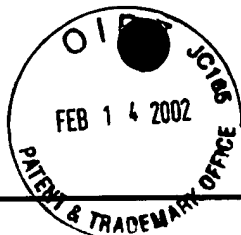
## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	Document Number	Date	Country	Class	Subclass	Translation	
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M.E.	DE3910054A1	11 Oct 90	Germany	H01J37	30		
M.E.	EP0257685B1	09 Jan 91	European Patent Office	H01J 37	317		
M.E.	JA6169125	09 Apl 86	Japan - Abstract	H01J37	305		
M.E.	WO0075954	14 Dec 00	WIPO	H01J37	317		

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*Examiner Initial	Cite No.	
M.E.	E	HAWKES, P.W. and KASPER, E., <u>Principles of Electron Optics</u> , Vol. 2., Applied Geometrical Optics, Academic Press, 1989: Chapters 47, 48. Pp971-1003.
M.E.	F	"Plasma Ion Source-ECR microwave plasma ion source," <a href="http://www.tectra.de/plasma-ion-source.htm">http://www.tectra.de/plasma-ion-source.htm</a> , Feb 18, 2000 Contact: Dr. Christian Bradley, tectra GmbH, Reuterweg 65, D-60323 Frankfurt/M.
M.E.	G	SLINGERLAND, H.N., BARTH, J.E., KOETS, E. KRAMER, J. van der MAST, K.D., "Proposal for a Second Generation IBPG," Proceedings Microcircuit Engineering Conference, 1984, <i>Microcircuit Engineering</i> , 1985, pp. 381-387



OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)		
M.E.	H	SLINGERLAND, H.N., BOHLANDER, J.H., van der MAST, K.D., KOETS, E., "Progress on the Delft Ion Beam Pattern Generator," <i>Microelectronic Engineering</i> 5 (1986), Elsevier Science Publishers B.V. (North Holland), pp 155-161.
M.E.	I	Van der MAST, K.D., JANSEN, G.H., BARTH, J.E., "The Shower-Beam Concept" <i>Microelectronic Engineering</i> 3 (1985), Elsevier Science Publishers B.V. (North Holland), pp 43-51.
M.E.	J	Van der MAST, K.D., PIJPER, F. J., and BARTH, J.E., "A Flexible Beamshaper," <i>Microelectronic Engineering</i> 5 (1986), Elsevier Science Publishers B.V. (North Holland), pp 115-122.
M.E.	K	VIJGEN, L., "Coulomb Interactions in Focused Ion Beam Columns," 3 Beams Conference 1992.
M.E.	L	VIJGEN, L.J., and KRUIT, P., "Coulomb Interactions in a Shaped Ion Beam Pattern Generator," <i>J. Vac. Sci. Technol. B</i> 10(6), Nov/Dec 1992, pp. 2809-2813.
EXAMINER M. El. Shammaa		DATE CONSIDERED 12.20.02

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*Examiner Initial	Cite No.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date (if appropriate)
ME	A	5,093,572	Mar 3, 1992	Hosono	250	310	
ME	B	5,149,974	Sept 22, 1992	Kirch, et al.	250	492.2	
ME	C	5,376,791	Dec 27, 1994	Swanson et al.	250	309	
ME	D	5,574,280	Nov 12, 1996	Fujii et al.	250	309	
<b>FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION</b>							
Examiner Initial	Cite No.	Document Number	Date	Country	Class	Sub-class	Translation
							Yes    No
M.E.	E	EP 0 927 880 A1	21 July 98	European Patent Office	H01J37	20	yes
<b>OTHER DOCUMENTS</b> (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)							
*Examiner Initial	Cite No.						
M.E.	F	EDINGER, Klaus, YUN, Victor, MELNGAILLIS, John and ORLOFF, Jon, "Development of a High Brightness Gas Field Ion Source," <i>J. Vac. Sci. Technol. B</i> (6), Nov/Dec 1997, pp. 2365-2368					
M.E.	F	GUHARAY, S.K., WANG, W., DUDNIKOV, V.G., REISER, M. ORLOFF, J. And MEINGAILLIS, J., "High-brightness Ion Source for Ion Projection Lithography," <i>J. Vac. Sci. Technol. B</i> (6), Nov/Dec 1996, pp. 3907-3910.					
EXAMINER <i>M. El-Shammaa</i>				DATE CONSIDERED 12.20.02			

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